



The Scottish Government

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Hydro Nation Scholars
Programme

OVERVIEW

Mato Grosso is located in the geographical centre of South America. The state is home to the northern part of the Brazilian Pantanal, which is the world's largest continental freshwater wetland, as well as an important refuge for many endangered species. It also has a rapidly expanding modern agribusiness sector and is the leading producer of soybeans within Brazil, which are exported mostly to China.



CONCEPTUAL FOUNDATIONS

The aim of this research project is to understand the values that different stakeholders attach to water resources in the area. While monetary valuation techniques are continuously developed and applied in natural resource management, calls to take alternative dimensions of value into account have always been present.

Drawing on theoretical insights from different disciplines, the present research sheds light not only on values that are assigned to water resources, but also on values that serve as guiding principles to decision-makers. While the first type may be linked to governance objectives and policy, the second type is more abstract and located at a deeper level; it may serve to explain objectives, assigned values, as well as governance processes. Governance is interpreted here as the result of the interplay between values and political power.



Scotland's centre of expertise for waters

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RESEARCH APPROACH

Qualitative Research Methods

- 24 in-depth interviews conducted between October and December 2014
- Participant observation at water-related events
- Location: Cuiabá and the Pantanal, Mato Grosso, Brazil

Stakeholder Groups from the Water Sector Covered

- **Public Sector**
 - Regional government
 - Researchers and academics
 - Municipal water agency
 - Consumer protection
- **Business Sector**
 - Agribusiness associations
 - Tourism sector
 - Fishing sector
 - Logistics and navigation
- **Civil Society**
 - NGOs
 - Domestic water users

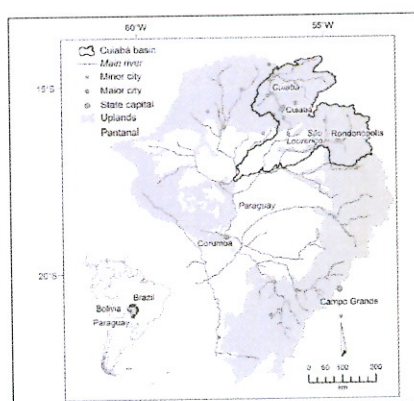


Figure 1. Map of the UPRB, the Pantanal, and the Culabá River Basin.

PRELIMINARY RESULTS

Water and Wetland Values	Values as Guiding Principles
<ul style="list-style-type: none"> • Source of Water Supply • Water Purification (sewage discharge) 	<ul style="list-style-type: none"> • Economic rationality (maximisation of efficiency and revenue) • Political power (party politics, informal coalitions)
<ul style="list-style-type: none"> • Commercial, recreational and subsistence fishing • Irrigation (limited to one tributary) • Navigation • Recreation • Cultural and aesthetic values • Biodiversity • Climate regulation • Flood protection • Human health and wellbeing 	<ul style="list-style-type: none"> • Christian beliefs (caring about creation) • “Development” and progress • Conservation and cultural traditions • Security and survival • Social justice • Happiness and enjoyment • Environmental law • Intrinsic value of water • Social responsibility, order, respect for others
<ul style="list-style-type: none"> • Cattle ranching • Tourism 	<ul style="list-style-type: none"> • Precautionary principle

FINDINGS AND RECOMMENDATIONS

- Water in the Cuiabá River Basin and in the Pantanal has enormous economic, cultural, ecological, aesthetic, recreational and livelihood value
- Great risk of prioritizing economic values over other types of value in water governance
- Economic rationality, a belief in progress and development, as well as strong political power are guiding principles of small influential elites, who dominate regional politics and the economy
- Environmental law, as well as principles of social justice, responsibility, public order and respect for others are constantly neglected, thus severely obstructing water governance
- Strengthening democratic institutions (such as river basin committees), enhancing environmental awareness among decision-makers and the general population, as well as more cooperation across sectors, different government levels, as well as geographical areas may improve the situation
- The data will be used to better understand how the interplay between values and political power shapes governance across specific management contexts, such as big infrastructure projects, fishing and tourism, water pollution, urban water supply and sanitation, as well as the introduction of bulk water charges